WHAT IS CLAIMED IS:

1. A method of detecting and correcting defective pixels in raw data taken from an image sensor used to obtain a digitized image, wherein said raw data includes normal pixels and defective pixels, said method comprising the steps of:

(a) receiving a raw data signal for each pixel in said image;

(b) computing for each pixel received from said image sensor a brightness value;

(c) computing for each pixel received from said image sensor a local brightness value;

(d) computing for each pixel received from said image sensor a local brightness deviation of said brightness value from said local brightness value;

(e) setting a deviation threshold;

(f) comparing for each pixel received from said image sensor, its local brightness deviation to said deviation threshold and designating pixels having local brightness deviations greater than said deviation threshold as defective pixels;

(g) recording the location of said defective pixels in a statistical database;

(h) recording the frequency of occurrence of said defective pixels in said statistical database; and

(i) correcting the brightness value of said defective pixels, provided said correcting is warranted by trends from said statistical database.

2. The method of claim 1, wherein said local brightness value is the arithmetic average of the brightness values of all pixels immediately neighboring and surrounding said pixel.

3. The method of claim 1, wherein said local brightness deviation is the absolute value of the difference between said pixel's brightness value and said pixel's local brightness value.

4. The method of claim 1, wherein said correcting is achieved by replacing said defective pixel's brightness value by said defective pixel's local brightness value.

5. The method of claim 1, performing said detecting and correcting of said defective pixels dynamically and without any operator intervention.

6. The method of claim 1, wherein said image sensor is a part of a digital video camera.

7. The method of claim 1, wherein said image sensor is a part of a digital still camera.

8. The method of claim 1, wherein said image sensor is one of (a) a charge-coupled device (CCD) image sensor array and (b) a complimentary metal oxide semiconductor (CMOS) image sensor array.

9. The method of claim 1, wherein said raw data is the unprocessed brightness value data which is output by said image sensor which has not gone through either lossy compression or color processing.

10. The method of claim 1, performing said detecting and correcting on a portion of said raw data obtained from said image sensor array corresponding to a portion of a frame of a video image.

11. The method of claim 1, performing said detecting and correcting on a portion of said raw data obtained from said image sensor array corresponding to a portion of a still digital image.

12. The method of claim 1, wherein said statistical database, by storing the location and frequency of defective pixels, develops over time trends which confirm which of said defective pixels are warranted for pixel correction, wherein said trends initially warrant pixel correction as a default and over time warrant pixel correction only if a particular defective pixel has an occurrence frequency of at least two out of four queries.

13. The method of claim 1, wherein said detecting includes video subsampling, wherein using video subsampling said detecting is carried out on video data frames at a rate between one of every 128 video frames and 1 of every 32 video frames, and wherein said correcting is continuous on every video data frame.

14. The method of claim 1, wherein said detecting includes video subsampling, wherein using video subsampling said detecting is carried out on video data

frames at a rate of one of every n times X frames, where n is an integer and where X is not equal to either 50 or 60.

15. A dynamic method requiring no user intervention for detecting and correcting defective pixels in raw data taken from an image sensor which is part of one of (a) a digital video camera and (b) a digital still camera, used to obtain a digitized image which is sensed by a camera and transmitted over a bus to a PC, wherein said raw data includes normal pixels and defective pixels, said method comprising the steps of:

(a) receiving raw data signals for each pixel from said image;

(b) computing for each pixel received from said image sensor a brightness value;

(c) computing for each pixel received from said image sensor a local brightness value, wherein said local brightness value is the arithmetic average of the brightness values of all pixels immediately neighboring and surrounding said pixel;

(d) computing for each pixel received from said image sensor a local brightness deviation of said brightness value from said local brightness value, wherein said local brightness deviation is the absolute value of the difference between said pixel's brightness value and said pixel's local brightness value;

(e) setting a deviation threshold;

(f) comparing for each pixel received from said image sensor, its local brightness deviation to said deviation threshold and designating pixels having local brightness deviations greater than said deviation threshold as defective pixels;

(g) recording the location of said defective pixels in a statistical database;

(h) recording the frequency of occurrence of said defective pixels in said statistical database; and

(i) correcting the brightness value of said defective pixels, provided said correcting is warranted by trends from said statistical database, wherein said correcting is achieved by replacing said defective pixel's brightness value by said defective pixel's local brightness value, wherein said statistical database warrants pixel correction if a particular defective pixel has an occurrence frequency of at least two out of four queries; and

wherein said detecting is carried out on video data at a rate of one of (a) between one of every 128 video frames and 1 of every 32 video frames, and (b) one of

very n times X frames, where n is an integer and X in not equal to either 50 or 60, and where said correcting is carried out continuously on every video data frame.

16. A system for detecting and correcting defective pixels in raw data taken from an image sensor used to obtain a digitized image, wherein said raw data includes normal pixels and defective pixels, said system comprising:

(a) an image sensor to record an image of a scene, said image sensor containing a grid of photosites to convert light shining on said photosites to electrical charges, wherein said electrical charges are converted to a series of analog charges which are then converted to digital signals by an analog to digital converter when said image is read off said sensor and;

(b) an intelligent host configured to receive said digital signals from said image sensor, wherein said intelligent host a computer program product comprising:

(i) a computer usable medium having computer readable code embodied therein for causing the detection and correction of said defective pixels, said computer program product comprising:

(1) computer readable program code devices configured to cause a computer to receive a raw data signal for each pixel in said image;

(2) computer readable program code devices configured to cause a computer to compute for each pixel received from said image sensor a brightness value;

(3) computer readable program code devices configured to cause a computer to compute for each pixel received from said image sensor a local brightness value;

(4) computer readable program code devices configured to cause a computer to compute for each pixel received from said image sensor a local brightness deviation of said brightness value from said local brightness value;

(5) computer readable program code devices configured to cause a computer to set a deviation threshold to be used in conjunction with said local brightness deviation;

(6) computer readable program code devices configured to cause a computer to compare for each pixel, its local brightness deviation to said deviation threshold and designate pixels having local brightness deviations greater than said deviation threshold as defective pixels;

(7) computer readable program code devices configured to cause a computer to record the location of said defective pixels in a statistical database;

(8) computer readable program code devices configured to cause a computer to record the frequency of occurrence of said defective pixels in said statistical database; and

(9) computer readable program code devices configured to cause a computer to correct the brightness value of said defective pixels, provided the correction is warranted by trends from said statistical database.

17. The system of claim 16, wherein said image sensor transmits said digital signals to said intelligent host via a bus, wherein said bus connects said image sensor to said intelligent host.

18. The system of claim 16, wherein said intelligent host is a server.

19. The system of claim 16, wherein said intelligent host is a personal computer.

20. The system of claim 16, wherein said local brightness value is the arithmetic average of the brightness values of all pixels immediately neighboring and surrounding said pixel.

21. The system of claim 16, wherein said local brightness deviation is the absolute value of the difference between said pixel's brightness value and said pixel's local brightness value.

22. The system of claim 16, wherein said correction is achieved by replacing said defective pixel's brightness value by said defective pixel's local brightness value.

23. The system of claim 16, wherein said image sensor array is one of (a) a charge-coupled device (CCD) image sensor array and (b) a complimentary metal oxide semiconductor (CMOS) image sensor array.

24. The system of claim 16, wherein said raw data is the unprocessed brightness value data which is output by said image sensor which has not gone through either lossy compression or color processing.

25. The system of claim 17, wherein said bus is one a (a) universal serial bus (USB) and (b) a parallel port.

26. The system of claim 16, performing said detecting and correcting of said defective pixels dynamically and without any user intervention.

27. The system of claim 16, wherein said image sensor is a part of a digital video camera.

28. The system of claim 16, wherein said image sensor is a part of a digital still camera.

29. The system of claim 16, performing said detecting and correcting on a portion of said raw data obtained from said image sensor array corresponding to a portion of a frame of a video image.

30. The system of claim 16, performing said detecting and correcting on a portion said raw data obtained from said image sensor array corresponding to a portion of a still digital image.

31. The system of claim 16, wherein said statistical database, by storing the location and frequency of defective pixels, develops over time trends which confirm which of said defective pixels are warranted for pixel correction, wherein said trends initially warrant pixel correction as a default and over time warrant pixel correction only if a particular defective pixel has an occurrence frequency of at least two out of four queries.

32. The system of claim 16, wherein said computer program causes said detecting to be carried out on video data frames at a rate between one of every 128 video frames and 1 of every 32 video frames, and said computer program causes said correcting to be carried out continuously on every video data frame.

33. The system of claim 16, wherein said computer program causes said detecting to be carried out on video data frames at a rate of one of every n times X frames, where n is an integer, and where X is not equal to either 50 or 60, and said

computer program causes said correcting to be carried out continuously on every video data frame.

34. The system of claim 16, wherein said computer program product consists of an anomalous pixel detection portion, an anomalous pixel correction portion and a statistical analysis portion.

35. The system of claim 16, wherein execution of said computer program product does not increase processor load by more than between 1 percent to 80 percent.

36. The system of claim 16, wherein execution of said computer program product does not reduce video processing by more than 1 frame per second.